

REMARKS

Claims 1 and 9-14 are presently pending in this application. Withdrawn claims 5-7 have been canceled and are to be presented in a divisional application, along with original claim 3. The substance of claims 4 and 8 has been incorporated into claim 1. Therefore, claims 4 and 8 have been canceled. The substance of claim 4 has also been combined with that of claim 10 and presented as new independent claim 13. Dependent claims 11, 12, and 14 have been added to claim additional features of the invention.

Claims 1 and 8-10 were rejected under 35 U.S.C. § 102(b) as being anticipated by Loeffler (DE Patent No. 19842532). Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Loeffler, in view of Lequesne (IEEE article). Claims 1 and 8-10 were provisionally rejected for obviousness-type double patenting. These rejections are respectfully traversed.

Applicant's Invention

The claimed invention is directed to a gear change device including a shift lever, a select actuator, and a shift actuator. The select actuator includes a casing, a shift lever support member within the casing and slidable in an axial direction and magnetic moving means mounted on the outer periphery of the shift lever support member. In a preferred embodiment the magnetic moving means comprises an annular permanent magnet with magnetic poles in both of its end surfaces in the axial direction, and movable yokes arranged respectively on the outer sides of the permanent magnet in the axial direction thereof. A cylindrical fixed yoke surrounds the magnetic moving means. A coil, or in a preferred embodiment a pair of coils, is disposed on the inside of the fixed yoke. Select position-

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limiting means limit the operation position of the shift lever support member in accordance with thrust produced on the shift lever support member due to electric power supplied to the coil or pair of coil members.

In one embodiment of applicant's inventive gear change device, the shift lever support member includes a control shaft rotatably disposed in the casing and a cylindrical shaft sleeve disposed on the control shaft and able to slide in the axial direction.

In a preferred embodiment, the select position-limiting means limits the operation position of the shift lever support member so as to position the shift lever to one of four select positions in accordance with thrust produced on said shift lever support member due to electric power supplied to the coil or pair of coil members.

The References

Loeffler discloses a select actuator having electromagnetic solenoids 24, 26. The Office Action contends that spring 42 is select position-limiting means for limiting the operation position of the shift lever support member in accordance with thrust produced on the shift lever support member due to electric power supplied to the coil members. However, spring 42 merely moves the shift lever 28 to the neutral position when the solenoids 24, 26 are deenergized.

Further, with reference to claims 11, 12, and 14, Loeffler's shift lever can be positioned at one of only three positions.

Lequesne discloses a linear motor.

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Argument

Neither Loeffler nor Lequesne shows or suggests select position-limiting means for limiting the operation position of the shift lever support member in accordance with thrust produced on the shift lever support member due to electric power supplied to the coil or pair of coil members. This feature is included in each independent claim 1, 10, and 13. It is accordingly urged that claims 1, 10 and 13 distinguish patentably from the references and are allowable, as are dependent claims 9, 11, 12, and 14.

In addition, dependent claims 11, 12, and 14 set out that the select position-limiting means limits the operation position of the shift lever support member to position the shift lever to one of four select positions in accordance with thrust produced on the shift lever support member due to electric power supplied to the coil or pair of coils. Loeffler's spring 42 merely moves the shift lever 28 to the neutral position when the solenoids 24, 26 are deenergized. Thus, these dependent claims are allowable for this further reason.

The amended claims likewise distinguish in a non-obvious manner over the claims of copending application Serial No. 10/171,610.

In view of the foregoing, Applicant submits that all the claims presently pending in the application are patentably distinct over the prior art of record and that the application is in condition for allowance. Such action would be appreciated.

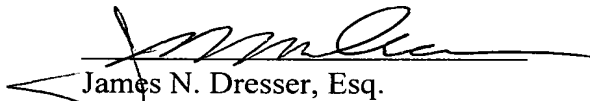
Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned attorney at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

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To the extent necessary, Applicant petitions for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Attorney's Deposit Account No. 50-0481 and please credit any excess fees to such deposit account.

Respectfully Submitted,

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